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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/602,044	06/23/2000	John Bronskill	203560	9040

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EXAMINER

HAVAN, THU THAO

ART UNIT PAPER NUMBER

2672

DATE MAILED: 02/04/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/602,044

Applicant(s)

BRONSKILL ET AL.

Examiner

Thu-Thao Havan

Art Unit

2672

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-39 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

Applicant's arguments with respect to claims 1-39 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

Claims **1-3, 5-8, 11-23, 26-27, 29-32, and 34-41** are rejected under 35 U.S.C. 102(e) as being unpatentable by Collins (US patent no. 6,173,075).

Re claim **1**, Collins discloses a method of drawing a brush stroke with a bitmap brush having pixels the brush stroke rendered relative to a guideline the guide line specifying an arbitrary path for the brush stroke the method comprising the steps of determining a first polygon on the guideline (col. 1, lines 40-59; col. 7, lines 8-17), determining a first segment in the bitmap brush corresponding to the first polygon on the guideline (col. 2, line 40 to col. 3, line 17), and applying a first transformation to a bitmap image mapped in the first segment in the bitmap brush to generate a corresponding bitmap image in the first polygon on the guideline (col. 4, line 2 to col. 5, line 39; figs. 1a-2a). In other words, Collins teaches the line art polygons are then formed as a set of

vector polygons, each polygon being formed around one unbroken. The result of this process is illustrated in figure 1a, which shows a drawn "Y" digitized into a bitmap.

Furthermore, figure 2a discloses the strokes are formed. A stroke is a connected sequence of vectors (conventionally, line segments, which in some embodiments are thought of as having a direction), or equivalently, a sequence of points. A stroke that follows a line art boundary normally defines a contour loop, that is, a sequence of points (vectors) that loops back on itself, which illustrates the boundary contours, in the forms of polygons defining the inside and outside boundaries of line art.

Re claims **2-4, 11-18, 20-22, and 29-37**, Collins teaches the first polygon comprises making a piece-wise linear approximation of the curved guideline the piece-wise approximation having a plurality of line segments that are connected end to end, generating sides of the first polygon at a first line segment in the plurality of line segments by drawing lines of specified length at the endpoints of the first line segment at least at one specified angle to the first line segment, and connecting the ends of the lines of specified length to complete the first polygon (col. 12, lines 14-53; figs. 2a, 2d, 2f, and 3h-3i). Collins teaches the process builds polygons from the strokes in the stroke list. In figure 2f, for each stroke in the stroke list, the area of the polygon defined by the points in the stroke is computed. If the area is positive, the polygon is appended to the polygon list and the next stroke is selected from the stroke list. If, on the other hand, the polygon area is not positive, the stroke is recognized as defining a hole (a sub-polygon) in some polygon. To place the hole properly, the process begins at the

beginning of the polygon list, and looping through the polygon list, finds the first polygon that contains a point of the sub-polygon. The sub-polygon is linked to the polygon.

Re claims **5 and 23**, Collins teaches the first side bisects the angle between the first line segment in the guideline and the adjacent second line segment in the guideline (fig. 2h).

Re claims **6 and 24**, Collins discloses guideline forms a closed loop (col. 10, lines 1-65; col. 12, lines 41-53). Collins teaches the loop around the line art is complete and the stroke points connected to form a closed contour.

Re claims **7-8 and 25-26**, Collins discloses first transformation is a bilinear transformation (fig. 2e and 2i). The weighted average is the bilinear transformation step.

Re claims **9 and 27**, Collins discloses first transformation is a texture mapping (col. 1, lines 6-25). It is inherent that cartoon animation comprises texture mapping.

Re claims **10 and 28**, Collins discloses a desired thickness for the brush stroke at a point on the curved guideline corresponds to a separation between a first line and a second line in the guideline (col. 12, lines 14-53; figs. 3a-3i).

Re claims **19 and 38**, the limitations of claims 19 and 38 are identical to claim 1 above except for computer-executable instructions. Therefore, claims 19 and 38 are treated the same as discussed with respect to claim 1 above. Collins's teaching is a computer system. It is apparent that computer software is used for executable instructions in relation to module.

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Re claim **39**, Collins discloses identifies corners of a polygon by truncating overlaps between adjacent polygons to generate corners of a convex polygon (col. 11, lines 47 to col. 12, line 13).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Daniels et al., US patent no. 6,268,865

Patrick et al., US patent no. 5,717,845

Yhann, US Patent No. 6,639,593

Bradstreet et al., US Patent No. 5,835,086

Gu et al., US Patent No. 6,097,853

Kiss, US Patent No. 5,687,304

Liepa, US Patent No. 6,037,948

Inquiries

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thu-Thao Havan whose telephone number is (703) 308-7062. The examiner can normally be reached on Monday to Thursday from 9:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Razavi can be reached on (703) 305-4713.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

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or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

Thu-Thao Havan
Art Unit: 2672
January 28, 2004



MICHAEL RAZAVI
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600